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09/966,970	09/28/2001	Jeffrey D. Harper	033257/236160	5811

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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/966,970
Filing Date: September 28, 2001
Appellant(s): HARPER, JEFFREY D.

HARPER, JEFFREY D.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 21, 2006 appealing from the Office action mailed October 20, 2005.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

WO 97/06523	RAO	02-1997
Admitted Prior Art	HARPER	

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-10, 12, 14-16, 18-20, 23-25 and 27-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appellant's admitted Prior Art, figures 1 and 3 of the drawings and the respective areas of the specification (hereinafter "Prior Art") in view of Rao et al (WO 97/06523 hereinafter "Rao").

Prior Art teaches an imaging device for simultaneous image capture and image display updating (Fig. 1) comprising an imager (20) for capturing image data; a CPU (30) in communication with the imager and issues commands to capture image data; a DMA module in communication with the imager and the CPU; a memory module (60) in communication with the CPU and the DMA module includes a buffer (70); an image enhancer (see step 110 in figure 3) for enhancing image data stored in the first and second image capture buffers prior to display and reformatting the image data. However, Prior Art fails to explicitly teach or suggest the memory module includes two buffers and functions as doubled buffering while one is writing from CPU and the other buffer is refreshing (reading) the screen. This is what Rao teaches (Fig. 1, buffers 110 and 111 and page 15, first full paragraph). It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of Rao into the system of Prior Art because doubled buffering technique provides advantages over the single

buffer by allowing concurrent update from one of the buffer and refresh from another buffer as taught by Rao (pages 5-9). Therefore, at least claims 1-3, 5-10, 12, 14-16, 18-20, 23-25 and 27 would have been obvious.

Claims 28-52 are similar in scope to claims 1-3, 5-10, 12, 14-16, 18-20, 23-25 and 27, and additionally require an portable data acquisition and display device (Fig. 1 and respective area of the specification) includes an image barcode reader (claim 33, which would have been obvious in view of the imager 20 of figure 1 because an image barcode reader or image scanner etc .... are considered one of the imager and can be replaced one from another by one ordinary skill in the art without any burden) and a controller (claim 33, such as, core logic 103 or address logic 112 and data logic 114). Therefore, claims 28-52 also would have been obvious by the combination of Prior Art and Rao.

(10) Response to Arguments

In response to Appellant's argument that Rao is not analogous to the claimed subject matter, in particular, Rao is not directed toward imaging devices, the examiner disagrees because a regular computer system can perform image processing. As is well known in the art, a computer system can capture and display images, and read barcode as long as it is connected to a camera or a bar code reader, and it can be a portable data acquisition and display device, such as a laptop computer. Moreover, Rao teach the frame buffer is used to temporarily hold display data ready for display on the display device and is accessible to the CPU as analogous to the claimed invention.

In response to Appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, suggestion and motivation is clearly identified in the rejection above, wherein the display memory is a double-buffered memory, where one buffer holds the current frame ready to be read out for display, while the other is used to temporarily store the next frame. One of the motivations or advantages provided by Rao is that double buffering provides concurrent update one of the buffers and refresh from another buffer (see pages 5-9), which identifies and solves the same problem.

Further, the 35 U.S.C. 103(a) rejection is based on Appellant's admitted Prior Art and Rao. Appellant's admitted Prior Art teaches every limitation except the double buffering feature and the examiner added Rao to teach or support that to replace a single buffer by a double buffer would have been obvious to one of ordinary skill in the art. Appellant argues the patentability of claims by individually addressing the references used to reject the claims. It is noted that the claims above are rejected as being obvious using a combination of the references. Appellant cannot show non-obviousness by attacking references individually where, as here the rejections are based on combination of references, i.e., Appellant's admitted Prior Art and Rao. In re Keller, 208 USPQ 871 (CCPA 1981).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Patent Examiner
Art Unit 2628

Conferee:

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